

Appl. No. : 09/804,480
Filed : March 12, 2001

REMARKS

No amendments are being made herein. Claims 1-8 remain pending in the application. The Applicants have carefully considered all of the Examiner's rejections and remarks but respectfully submit that the claims are allowable for at least the following reasons.

Rejections under § 103

The Examiner rejected Claims 1-8 under 35 U.S.C. § 103(a) as being unpatentable over Gonzalez et al. (1999) in view of Mitchell et al. (1992). The Examiner argued that Gonzalez teaches applying an electrical stimulus to cells. The Examiner noted that Gonzalez does not teach the claimed stimulation protocol but argued that Mitchell does. The Applicants respectfully disagree.

A *prima facie* case of obviousness requires that all of the claim limitations are taught or suggested by the prior art. See M.P.E.P. § 2143.03. As noted in Applicants' previous response, Claim 1 requires exposing cells to *biphasic* electric fields, which the specification defines at page 10, line 1, as "*a pulse with two parts, each with an opposite polarity.*" Mitchell discloses applying rectangular voltage pulses to cardiac tissue to stimulate contraction. Mitchell does not disclose that these pulses are biphasic. In fact, Mitchell discloses that the pulses were generated using a Grass S88 pulse generator. See Mitchell, p. 53, column 1. As illustrated by the stimulator output timing patterns depicted in Exhibit A, a Grass S88 pulse generator produces monophasic rectangular pulses. This is further evidenced by the comparison between the Grass S88 and Grass S88X generators presented in Exhibit B. The S88X generator can produce biphasic pulses while the S88 cannot. The S88X generator is a new Grass generator that introduces the "new feature" of biphasic pulsing (see Exhibit C) and thus, was not the generator used by Mitchell. Accordingly, Mitchell does not disclose biphasic electric fields and did not actually use biphasic electric fields. Therefore, the Applicants respectfully submit that Claims 1-8 are not obvious over Gonzalez and Mitchell.

The Applicants further note that Mitchell discloses maintaining a pulse rate below 300 per minute (i.e., below 5 Hz). See Mitchell, p. 53, column 2. In contrast, the claims require a rate of approximately 20 to 100 Hz. Thus, Mitchell does not disclose the claimed stimulation

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protocol for this additional reason and in fact, teaches away from it. For this further reason, Claims 1-8 are non-obvious over Gonzalez and Mitchell, either separately or combined.

CONCLUSION

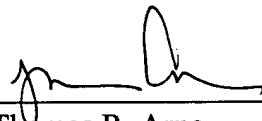
The Applicants respectfully submits that by the foregoing remarks, they have overcome the Examiner's rejections and request a timely issuance of a Notice of Allowance.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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